

- b) one or more load lock chambers disposable about the transfer chamber;
c) two or more process chambers disposed about the transfer chamber;
d) a plumbing tray disposed adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
e) a chamber tray disposed adjacent each process chamber, each load lock chamber and the transfer chamber, the chamber trays each having a plurality of facility connections which are in fluid communication with the facility connections of the plumbing tray,

wherein each process chamber is disposable on each chamber tray.

2. (Cancelled without prejudice) A method of processing a substrate, comprising:

- a) introducing a substrate into a load lock chamber from atmospheric pressure;
b) degassing and/or pre-heating the substrate in the load lock chamber;
c) introducing the substrate into a transfer chamber; and
d) processing the substrate in one or more process chambers.

3. (Cancelled without prejudice) The method of claim 2 further comprising:

- e) introducing the substrate into the load lock chamber;
f) cooling the substrate in the load lock chamber; and then
g) venting the load lock chamber to atmospheric pressure.

6. (Cancelled without prejudice) A method of processing substrates, comprising:

- a) positioning a pair of substrates on two blades on separate robots in a processing system;
b) moving the substrates in parallel to a pair of first process chambers; and then
c) moving the substrates in parallel to a pair of second process chambers.

8. The apparatus of claim 1, wherein the transfer chamber comprises at least six process access ports.

11. The apparatus of claim 28, wherein the modular unit is mounted to the transfer chamber at the access port.

12. The apparatus of claim 1, wherein the chamber tray is mounted separately to the transfer chamber.

13. The apparatus of claim 1, wherein the process chamber and the chamber tray are mounted to a support frame.

14. The apparatus of claim 13, wherein the support frame comprises rollable support members.

15. (Amended) The apparatus of claim 1, wherein the chamber tray comprises an enclosure having one or more facilities selected from the group consisting of a pneumatic distribution manifold, process gas manifold, vacuum manifold, water manifold, and helium manifold.

16. The apparatus of claim 15, wherein the enclosure comprises a plurality of facility connections disposed thereon that are in fluid communication with the facility connections of the plumbing tray.

18. The apparatus of claim 1, wherein the transfer chamber comprises at least one transfer means for moving work pieces to and from the load lock and process chambers.

19. The apparatus of claim 18, wherein the transfer means is a robot.

20. The apparatus of claim 19, wherein the transfer chamber comprises two transfer robots.

21. The apparatus of claim 20, wherein the transfer chamber further comprises at least one lift, the lift comprising a support shaft, pedestal, lift assembly, and rotational assembly.

22. The apparatus of claim 21, wherein the lift is rotatable to maintain an orientation of the work pieces as the work pieces pass between the transfer robots.

28. (Amended) An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising two or more process access ports;
- b) one or more load lock chambers disposed about the transfer chamber;
- c) two or more process chambers disposed about the transfer chamber;
- d) a plumbing tray disposed adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
- e) a chamber tray disposed adjacent each process chamber, each load lock chamber and the transfer chamber, wherein the chamber trays each comprise a support frame having a plurality of facility connections which are in fluid communication with the facility connections of the plumbing tray, and wherein each process chamber and each chamber tray form a modular unit.

29. (Amended) An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising two or more process access ports;
 - b) one or more load lock chambers disposed about the transfer chamber;
 - c) two or more process chambers disposed about the transfer chamber;
 - d) a plumbing tray disposed underneath the transfer chamber having facility connections for each process chamber and load lock chamber; and
 - e) a chamber tray disposed adjacent each process chamber, each load lock chamber and the transfer chamber, the chamber trays each comprise a support frame
-

having a plurality of facility connections which are in fluid communication with the facility connections of the plumbing tray.

Please add the following new claims 30-37:

30. (New) An apparatus for processing substrates, comprising:
- a transfer chamber having two or more processing positions that are arranged in a substantially horizontal plane;
 - two robots located within the transfer chamber and operable in tandem to transfer a pair of substrates through the processing positions so that the pair of substrates can be processed simultaneously or nearly simultaneously;
 - two or more processing chambers located about the transfer chamber, each processing chamber located at one of the processing positions;
 - a plumbing tray disposed underneath the transfer chamber having facility connections for the processing chambers; and
 - two or more chamber trays each comprising a support frame having a plurality of facility connections disposed thereon that are in fluid communication with the facility connections of the plumbing tray and that are in fluid communication with the processing chambers, wherein each chamber tray is adapted to distribute facilities from the plumbing tray to its respective processing chamber.
31. (New) The apparatus of claim 30, wherein the plumbing tray and the transfer chamber are disposed on a mainframe support.
32. (New) The apparatus of claim 31, wherein the chamber trays are disposed on the mainframe support.
33. (New) The apparatus of claim 31, wherein each processing chamber and each chamber tray are mounted separately on a single support frame that is mounted to the mainframe support.